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Read and Write Data

Checking CF-compliance: The CF Checker

Thanks to all contributors:

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A foreword

At the moment cf-checker only works with Python 2 and is hopefully getting Python 3 support soon.
See: https://github.com/cedadev/cf-checker/issues/48
For the sake of completeness we will show you how to use it regardless.
If you want to use it yourself you can do so if you install Python 2 or just wait until it is updated with Python 3 compatibility.

What is the CF-Checker?

The tool `cf-checker` will check the metadata of a NetCDF file for compliance with the CF conventions. It is very good practice to check your files for compliance at regular intervals as fixing problems early is much easier than letting small errors persist.

```
$ cf-checker data/test.nc
```

Running the CF-checker

Let's check the file we have created for compliance.

```
CHECKING NetCDF FILE: data/test.nc
====================
Using CF Checker Version 2.0.5 Checking against CF Version CF-1.6
Using Standard Name Table Version 26 (2013-11-08T06:09:34Z) Using
Area Type Table Version 2 (10 July 2013)

WARNING (2.6.1): No 'Conventions' attribute present

------------------
Checking variable: latitude
------------------
WARNING (3): No standard_name or long_name attribute specified ERROR
(3.1): Invalid units:  degrees north

------------------
Checking variable: level
------------------
WARNING (3): No standard_name or long_name attribute specified
```

Running the CF-checker

```
------------------
Checking variable: temp
------------------
WARNING (3): No standard_name or long_name attribute specified

------------------
Checking variable: longitude
------------------
WARNING (3): No standard_name or long_name attribute specified ERROR
(3.1): Invalid units:  degrees east

------------------
Checking variable: time
------------------
```

Further reading

You can use the online CF-checker here:
https://ceda-wps-ui.ceda.ac.uk/processes/execute?wps=compliance_checker&process=CFCheck

CF-checker code:
https://github.com/cedadev/cf-checker